

## Minorities and AIDS: Knowledge, Attitudes, and Misconceptions among Black and Latino Adolescents

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**Abstract:** White adolescents in San Francisco high schools were more knowledgeable than Black adolescents about the cause, transmission, and prevention of AIDS (acquired immunodeficiency syndrome), and Black adolescents were more knowledgeable than their Latino peers. Black and Latino adolescents were approximately twice as likely as White adolescents to have misconceptions about the casual transmission of AIDS. Less knowledge about AIDS and prevalent misconceptions were associated with greater levels of perceived risk of contracting AIDS. (*Am J Public Health* 1988; 78:55-57.)

### Introduction

Adolescents currently represent less than 1 per cent of all diagnosed cases of acquired immunodeficiency syndrome (AIDS) in the United States<sup>1</sup>; yet their sexual behavior and incidence of sexually transmitted diseases (STDs) suggest that adolescents,<sup>2,3</sup> especially Black adolescents, may be at increased risk of Human Immunodeficiency Virus (HIV) infection.<sup>4-7</sup> Similar data are presently not available for other minority populations. While comprising 12 per cent and 6 per cent of the United States population, respectively, Blacks and Latinos account for 25 per cent and 14 per cent of all diagnosed cases of AIDS.<sup>8</sup>

Recent reports suggest that adolescents lack sufficient knowledge about the cause and transmission of AIDS—particularly about precautionary measures to be taken during sexual intercourse.<sup>9,10</sup> Other data suggest ethnic differences in adolescents' knowledge and misconceptions about AIDS, with Blacks and Latinos reporting the least knowledge.<sup>11</sup> This paper describes Black and Latino adolescents' knowledge, attitudes and misconceptions about the cause and transmission of AIDS relative to their White counterparts.

### Methods

Data were collected in May 1985 from 261 White, 226 Black, and 141 Latino adolescents in the San Francisco Unified School District as part of a needs assessment of knowledge about the cause, transmission, and treatment of AIDS.<sup>10</sup> Students enrolled in Family Life Education classes at the 10 largest high schools were eligible to participate in the study and virtually all returned usable questionnaires. Ethnic group affiliation was determined by self-identification. Age

ranged from 14–18, with a mean of 16 years, 51.8 per cent were male and 48.2 per cent were female.

All students were administered the AIDS Information Survey, a self-report questionnaire which assessed students' knowledge, attitudes, and beliefs about AIDS. Students were requested to give "True", "False", and "Don't Know" responses to all items.

The AIDS Information Survey is comprised of three sub-scales: A Knowledge Scale of AIDS, a Misconception Scale of Casual Contagion, and a Scale of Perceived Susceptibility. The Knowledge Scale is derived by summing the correct responses for each of the 25 items yielding a summary score. The internal consistency of the Knowledge Scale was satisfactory ( $\alpha = 0.72$ ). The Misconception Scale of Casual Contagion is a five-item scale. It is the sum of all incorrect responses to those statements which reflect adolescents' inaccurate attribution of disease transmission by casual contact ( $\alpha = 0.75$ ). The Scale of Perceived Susceptibility is a composite of three items of perceived risk ( $\alpha = 0.55$ ).

### Results

Substantial ethnic differences were found in knowledge of AIDS (Table 1). Although all groups correctly reported that "having sex with someone who has AIDS is one way of getting the disease" and were aware that sharing intravenous needles with drug users was also a major mode of disease transmission, a greater proportion of White adolescents (71.7 per cent) were aware that using condoms during sexual intercourse would lower the risk of disease transmission compared with only 59.9 per cent and 58.3 per cent of the Black and Latino adolescents, respectively. Black and Latino adolescents were less likely than White adolescents to respond correctly to the statement that "all gay men have AIDS" (RR Black 0.88 (95% CI .82-.95) Latino 0.88 (.80-.96)). A stronger relationship was identified in response to the statement "all gay women have AIDS" (RR Black 0.85 (.78-.93) Latino 0.76 (.67-.86)).

### Knowledge and Perceived Risk of AIDS

The sample was stratified by means of a median split into either high or low perceived risk categories using the Perceived Susceptibility Scale and high and low knowledge scores. Contingency table analyses conducted separately for each ethnic group revealed that Whites, Blacks, and Latinos assigned to the low knowledge group had a somewhat greater likelihood of being categorized in the high perceived risk group (RR Whites 1.2 (0.9-1.6), Blacks 1.3 (1.0-1.7), and, Latinos 1.5 (.99-2.2). Thus, a lower level of knowledge was associated with a higher level of perceived risk of contracting AIDS.

### Misconceptions about Casual Contagion of AIDS

Table 2 displays the proportion of each ethnic group responding incorrectly to each of the five casual contagion

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**TABLE 1—Proportion (and 95% CI) of Correct Responses by Adolescents to Knowledge Statements by Ethnicity**

Questionnaire Statements†	White (261)	Black (226)	Latino (141)	RR(Black)*	RR(Latino)*
AIDS is a medical condition in which your body cannot fight off diseases.	80.4	74.3	69.3	0.92 .84–1.02	0.86 .76–.98
AIDS is caused by a virus.	68.3	62.2	56.5	0.91 .80–1.04	0.83 .70–.98
AIDS is a condition you are born with.	91.6	86.1	80.7	0.94 .88–1.0	0.88 .80–.96
Stress causes AIDS.	86.1	86.9	77.7	1.0 .94–1.08	0.90 .82–1.0
All gay men have AIDS.	91.0	80.7	80.0	0.88 .82–.95	0.88 .80–.96
What you eat can give you AIDS.	85.0	81.4	75.4	0.95 .88–1.04	0.88 .79–.98
Anybody can get AIDS.	89.4	90.3	85.1	1.01 .95–1.07	0.95 .88–1.03
AIDS can be cured.	78.8	67.9	57.1	0.85 .77–.96	0.73 .62–.85
Women are more likely to get AIDS during their period.	63.4	67.3	53.4	1.06 .93–1.2	0.84 .70–1.0
If a pregnant woman has AIDS, there is a chance it may harm her unborn baby.	90.2	92.9	88.7	1.03 .98–1.09	0.98 .92–1.11
Most people who get AIDS usually die from the disease.	84.7	86.9	84.3	1.02 .95–1.1	0.99 .91–1.09
Using a condom during sex can lower the risk of getting AIDS.	71.7	59.9	58.3	0.83 .73–.95	0.81 .69–.95
Receiving a blood transfusion with infected blood can give a person AIDS.	93.0	86.1	89.2	0.93 .87–.98	0.96 .90–1.02
You can get AIDS by sharing a needle with a drug user who has the disease.	84.8	91.5	82.7	1.08 1.0–1.15	0.98 .89–1.07
AIDS is a life-threatening disease.	92.6	90.0	81.2	0.97 .91–1.02	0.88 .81–.96
People with AIDS usually have lots of other diseases as a result of AIDS.	53.3	33.3	38.1	0.62 .50–.77	0.72 .57–.91
AIDS is not at all serious, it is like having a cold.	95.1	94.2	93.6	0.99 .95–1.03	0.98 .94–1.04
AIDS is caused by the same virus that causes VD.	59.6	38.8	37.7	0.65 .54–.79	0.63 .50–.79
The cause of AIDS is unknown.	49.4	43.3	48.6	0.87 .72–1.06	0.99 .80–1.2
Having sex with someone who has AIDS is one way of getting it.	94.7	98.7	97.2	1.04 1.0–1.07	1.03 .99–1.07
All gay women have AIDS.	88.0	75.0	67.0	0.85 .78–.93	0.76 .67–.86
There is no cure for AIDS.	76.0	74.1	61.0	0.97 .88–1.11	0.80 .69–.93
I can avoid getting AIDS by exercising regularly.	84.0	83.7	72.5	0.99 .92–1.11	0.86 .77–.97
AIDS can be cured if treated early.	49.0	47.3	26.3	0.96 .80–1.16	0.53 .39–.72
A new vaccine has recently been developed for the treatment of AIDS.‡	37.3	21.2	19.4	0.57 .42–.77	0.51 .35–.75

\*RR = rate ratio; White group is the referent

†Students were requested to respond "true", "false", or "don't know".

‡At the time of the study, no new drugs (i.e., AZT) or vaccines were available.

statements. Blacks were almost twice as likely and Latinos were more than twice as likely than Whites to be in the high misconception category.

Adolescents who scored above the median on the Misconception Scale (endorsed more than three incorrect responses) were four times as likely as adolescents who scored below the median to believe that "all gay men have AIDS" (RR 4.0 (2.6–6.2) and twice as likely to believe that "all gay women have AIDS" (RR 2.8 (2.1–3.6)); they were

also more likely to perceive themselves at greater risk of contracting AIDS (RR 1.4 (1.2–1.6)).

### Discussion

The present study has identified a marked disparity between adolescents' awareness of the primary route of HIV infection (i.e., sexual intercourse) and knowledge of a precautionary measure to lessen the risk of infection (i.e., use of

**TABLE 2—Proportion (and 95% CI) of Adolescents Endorsing Misconceptions about Transmission of AIDS through Casual Contact**

Questionnaire Statements†	% Responding Incorrectly			RR(Black)*	RR(Latino)*
	White	Black	Latino		
You can get AIDS from kissing.	43.7	65.9	70.9	1.51 1.28–1.78	1.62 1.36–1.93
You can get AIDS from touching.	22.3	30.1	34.6	1.35 1.0 –1.83	1.56 1.13–2.15
You can get AIDS being around someone with the disease.	20.2	33.6	30.5	1.69 1.24–2.29	1.53 1.08–2.17
You can get AIDS by using someone's personal belongings.	14.2	24.4	34.0	1.72 1.18–2.5	2.40 1.65–3.5
You can get AIDS by shaking hands with someone who has the disease.	17.0	28.3	35.5	1.68 1.2 –2.36	2.15 1.52–3.04
Above Median on Misconceptions of Casual Contagion Scale (score >3 on scale of 1–5)	10.9	19.0	22.7	1.77 1.14–2.76	2.12 1.33–3.66

\*RR = rate ratio; White group is the referent

†Students were requested to respond "true", "false", or "don't know".

condoms).<sup>12</sup> This is particularly alarming since there is no cure or effective treatment for AIDS and primary prevention is of utmost importance in curtailing the spread of the disease.<sup>13</sup> The findings suggest that adolescents, particularly Black and Latino adolescents, may be at greater risk of HIV infection as a consequence of engaging in unsafe sexual practices attributable to insufficient information.

A second finding suggests that adolescents with less knowledge about AIDS, irrespective of ethnic group status, are more likely to perceive themselves at high risk for contracting the disease. Black and Latino adolescents demonstrate a greater likelihood of perceived susceptibility.

The prevalence of misconceptions about the threat of casual contagion of AIDS among Black and Latino adolescents suggests the need for preventive AIDS education not only to decrease potential high-risk behaviors, but also to reduce unnecessary feelings of anxiety regarding susceptibility. Recent reports from the National Academy of Sciences<sup>14</sup> and the Office of the Surgeon General<sup>15</sup> support the need for widespread AIDS education.

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